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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,937	12/29/2000	Donald Brent Marshall	56130.000045	6809

7590 10/19/2004
Hunton & Williams
1900 K Street, N.W.
Washington, DC 20006-1109

EXAMINER

PHAN, TAM T

ART UNIT	PAPER NUMBER
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2144

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/749,937

Applicant(s)

MARSHALL ET AL.

Examiner

Tam (Jenny) Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,8-13,15-21,23 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,8-13,15-21,23 and 25-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This application has been examined. Amendment received on 0/14/2004 has been entered. Claims 1, 9, 17, 18, and 26 are currently amended. Claims 5, 7, 14, 16, 22, 24 are cancelled. Claims 2-4, 6, 8, 11-13, 15, 16, 19-21, 23, and 25 are original. Claim 27 is newly added.

2. Claims 1-4, 6, 8-13, 15-21, 23 and 25-27 are presented for examination.

Priority

3. No priority claims have been made.

4. The effective filing date for the subject matter defined in the pending claims in this application is 12/29/2000.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4, 6, 8-13, 15-21, 23 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumelsky et al. (U.S. Patent Number 6,463,454), hereinafter referred to as Lumelsky in view of Welling, Jr. et al. (U.S. Patent Number 6,181,927), hereinafter referred to as Welling.

7. Regarding claim 1, Lumelsky disclosed a system for enabling distribution of service functionality across network elements in a network comprising: a) a service logic execution engine for enabling service logic to execute on one or more nodes in the

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network (Figures 2 & 10; column 23 lines 62-67); b) a determination means for determining a preferred distribution scheme wherein the distribution scheme involves placement of nodes (Figures 10 & 12, column 6 lines 21-28, lines 51-60, column 9 lines 50-67) based on the group of location of associated physical resources (column 13 lines 1-20, column 14 lines 48-55, column 17 lines 18-31) and natural couplings of associated service software (column 4 lines 44-55, column 23 lines 38-54); and c) a distribution means for distributing service functionality to nodes in accordance with the distribution scheme (column 6 lines 21-28, lines 51-60, column 9 lines 50-67).

8. Lumelsky taught the invention substantially as claimed. However, Lumelsky did not expressly teach a distribution scheme wherein the distribution scheme involves placement of nodes based on minimization of inter-node interactions and a distribution means wherein a service logic execution engine is informed of one or more locations to which one or more application components are distributed.

9. Lumelsky suggested exploration of art and/or provided a reason to modify the system for enabling distribution of service functionality with the distribution scheme constraint (column 6 lines 51-60) and location-based distribution features (column 14 lines 48-55).

10. Welling disclosed a distribution scheme wherein the distribution scheme involves placement of nodes based on minimization of inter-node interactions (Figure 1, column 1 lines 37-53, column 2 lines 31-38) and a distribution means wherein the service logic execution engine is informed of one or more locations to which one or more application components are distributed (Figure 4, column 2 lines 39-60, column 3 lines 48-64).

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11. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of Lumelsky with the teachings of Welling to include the distribution scheme constraint and location-based distribution features in order to manage and control the distribution and placement of component objects (Lumelsky, column 6 lines 51-60) since this would effectively permits control and customization of system resources (Lumelsky, Abstract).

12. Regarding claim 2, Lumelsky disclosed a system wherein the distribution scheme involves executing where one or more associated physical resources are located (column 13 lines 1-20, column 14 lines 48-55, column 17 lines 18-31).

13. Regarding claim 3, Lumelsky disclosed a system wherein the distribution scheme comprises a selection function to determine one or more nodes to be invoked (Figures 13a-13b, column 12 lines 26-39, column 16 lines 11-25, column 28 lines 61-65).

14. Regarding claim 4, Lumelsky disclosed system wherein the selection function comprises executing an algorithm (Figures 13a-13b, column 16 lines 11-25, column 25 lines 42-54).

15. Regarding claim 6, Lumelsky disclosed a system wherein the distribution scheme involves making efficient use of network resources (column 4 lines 44-55, column 21 lines 29-53).

16. Regarding claim 8, Lumelsky disclosed a system wherein one or more service logic execution engines execute on one or more participating nodes in the network (column 23 lines 62-67, column 24 lines 1-23).

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17. Regarding claim 9, Lumelsky disclosed a system wherein multiple parallel servers are configured to execute a service wherein the throughput is scalable to a desired level (column 6 lines 61-67, column 7 lines 1-24, column 12 lines 4-13).

18. Regarding claims 10-13, 15, and 16-17, the method corresponds directly to the system of claims 1-4, 6, 8-9, and thus these claims are rejected using the same rationale.

19. Regarding claims 18-21, 23, 25-26, the processor readable medium corresponds directly to the system of claims 1-4, 6, 8-9 and the method of claims 10-13, 15, and 16-17, thus these claims are rejected using the same rationale.

20. Regarding claim 27, Welling disclosed a system wherein the service logic execution engine enables event passing between application components during execution (column 2 line 61-column 3 line 5, column 3 lines 56-64).

21. Since all the limitations of the claimed invention were disclosed by Lumelsky, claims 1-4, 6, 8-13, 15-21, 23 and 25-27 are rejected.

Response to Arguments

22. Applicant's arguments, filed 07/14/2004, with respect to claim 1-26 have been considered but are moot in view of the new ground(s) of rejection.

23. In response to applicant's arguments that Lumelsky et al. fails to disclose the claimed limitation (i.e. a service logic execution engine...; a determination means for determining a preferred distribution scheme...;etc.), applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the

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claims patentably distinguishes them from the references. For argument purposes, these arguments will be addressed as shown below.

24. In response to applicant's argument that Lumelsky fails to disclose the claimed limitations, it is submitted that Lumelsky discloses these limitations as detailed in the rejection above. Lumelsky disclosed a service logic component provides application-oriented functions such as handling of client interactivity, a preferred distribution scheme for placement of request objects onto servers [nodes] based on location and natural coupling constraint, and a distributing mechanism for distributing component objects according to the preferred distribution scheme. Welling is relied upon to reject the amended limitations of minimization of inter-node interactions and service logic execution engine being informed of location(s) of distributed object components. Thus, it is submitted that the combination of Lumelsky and Welling disclosed all the limitations necessary to reject the independent claims. Refer to rejection above for complete details.

25. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the examiner had established motivation and reason for combining the references of Whited and Deo et

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al. as set forth in the previous action dated 04/14/2004. However, in view of the currently amended claims, applicant's arguments have been fully considered and are persuasive. The 35 U.S.C. 103(a) rejection of 1-26 has been withdrawn.

Conclusion

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Barnhouse et al. (U.S. Patent Number 6,418,461) disclosed an intelligent call processor, an intelligent switching node and an intelligent communications network for use in a communications system. The intelligent call processor comprises a logical platform having a plurality of functions wherein at least one of the functions is service processing function, at least one of the functions is call processing, and at least one of the functions is facility processing, and a processor for executing the plurality of functions. The intelligent switching node comprises an intelligent call processor and, a resource complex communicably

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linked to the intelligent call processor and logically separated from the intelligent call processor. The intelligent communications network comprises a plurality of intelligent distributed network nodes, a network management system for monitoring and controlling a wide area network and the plurality of intelligent switching nodes, and the wide area network interconnecting the plurality of intelligent distributed network nodes and the network management system.

b. Copley et al. (U.S. Patent Number 6,075,854) disclosed an advanced intelligent network includes switches or service switching points (SSPs) coupled to signal transfer points (STPs), which are in turn coupled to service control points (SCPs). The interconnections between service switching points and service control points employ the signalling system number 7 or SS7 protocol for sending query messages associated with the execution of services. The service control points executes service logic programs which define the services and further store and maintain databases that have data associated with the services. The service control points are further coupled to a service management system (SMS), which supports the operations, administrations, management, and provisioning (OAM&P) needs of the network. The advanced intelligent network further includes intelligent peripherals, which are coupled to service switching points and the service management system, and provide pre-recorded voice announcements, voice synthesis, and other functionalities that generally facilitate interaction with service subscribers and customers. The connection between the service management system and other network nodes is typically via X.25 links. In the advanced intelligent network, telecommunications services are typically defined in a service creation environment (SCE) node by the service provider and then relayed to the service management system, which disseminates the service logic programs to the rest of the network for execution.

28. Refer to the enclosed PTO-892 for details and complete listing of other pertinent prior art of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam (Jenny) Phan whose telephone number is (703) 305-4665 or (571) 272-3930 (new telephone number after October 18, 2004). The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on 703-308-3873 or (571) 272-3925

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(new telephone number after October 27, 2004). The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William Cuchlinski

SPE

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703-308-3873

tp
October 13, 2004